

NOVEMBER/DECEMBER 2024

**23PMB11 — GENERAL MICROBIOLOGY
AND MICROBIAL DIVERSITY**

Time : Three hours

Maximum : 75 marks

SECTION A — (10 × 2 = 20 marks)

Answer ALL questions.

1. What is the golden age of Microbiology?
2. What is confocal microscope used for?
3. Define sporulation.
4. What is meant by growth curve?
5. What is the morphological structure of Nostoc?
6. Which are the best medium for Algae cultivation?
7. What are probiotics?
8. Mention any two name of the culture collection centre.
9. Give any two examples of acidophilic microorganisms.
10. Define Barophiles.



SECTION B — (5 × 5 = 25 marks)

Answer ALL the questions.

11. (a) Describe about principles of phase contrast microscope.

Or

- (b) List out the scope of microbiology.

12. (a) Give an account on classification of fungi.

Or

- (b) What are the factors affecting the growth of microorganisms?

13. (a) Enumerate the economic importance of algae.

Or

- (b) Draw a neat sketch of life cycle of *Chlamydomonas* and explain in brief.

14. (a) Discuss in brief about the chemical methods of sterilization.

Or

- (b) Interpret the principle, procedure and result of capsular staining.

15. (a) Analyse about the applications of Thermophiles.

Or

- (b) Write a short note on methanogens.

SECTION C — (3 × 10 = 30 marks)

Answer any THREE questions.

16. Write a detailed account on Electron Microscopy Techniques.

17. Estimate the any three methods of Measurements of Microbial Growth.

18. Discuss the Strain selection and large scale production of Sargassum (Brown algae).

19. Summarize about the preservation of pure culture.

20. Elaborate account on Classifications and applications of Halophiles.

